

## **Summary report of stock use in wilderness meadows Sequoia and Kings Canyon National Parks, 2003**

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### ***Summary***

- Reported recreational and administrative stock use during the summer of 2003 totaled **8,218 stock nights**, or 9,607 animal unit nights. This represents a decrease of 9.5% compared to 2002, which had a total of 9,076 stock nights reported.
- Commercial and administrative packers continue to account for the majority of packstock use in the two parks, accounting for 45% and 38%, respectively, of reported use. Private users accounted for the remaining 18%.
- Relative to 2002, reported commercial use decreased by 4.2%, while reported private use increased by 1.5%. The decrease in commercial use reflects in part the closure of the Mineral King Pack Station (due to health issues), and fire activity in the Roaring River area (Horse Corral Pack Station) and in the Kern Canyon (Balch Park Pack Station).
- Administrative use decreased by 4.1% over the previous year, with two trail crews (Hockett and Kings) accounting for the majority of this decrease.
- Reported use of supplemental feed in lieu of grazing increased significantly among commercial and private users, but use by administrative packers decreased relative to 2002.
- Horses and mules remained the primary type of stock used, accounting for just under 90% of total use. Llama use increased slightly over that reported for 2002, but remained significantly below that reported for 1999. Reported burro use accounted for over 9% of total stock use.

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Prepared by S. Haultain/Plant Ecologist  
Division of Natural Resources  
Sequoia and Kings Canyon National Parks  
Three Rivers, California 93271  
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## Introduction

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This document provides the 2003 annual summary of reported administrative and recreational saddle and packstock use of the wilderness meadows of Sequoia and Kings Canyon National Parks (SEKI). This information is collected via reporting forms that are distributed to commercial, private, and administrative stock users, and from the wilderness permit database. After each trip all stock users at SEKI are required to provide the information requested on these forms.

Data on stock use of the wilderness meadows of SEKI has been collected in one form or another for over fifty years. In 1986, a standardized approach with accompanying computer database was initiated, and this method, although modified, is still in use today. From this database, yearly summary statistics are prepared and presented in tabular and graph form, and comparison with past years use is presented.

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## Methods

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At the beginning of each field season (May) all commercial and administrative stock users of the wilderness at SEKI are provided forms to document their trips. Private stock users are given a "Stock-Use Card" along with the issuance of their wilderness permit. All stock users are required to respond to the information requested on these forms, which includes:

- 1) Name of packer
- 2) Date of trip
- 3) Packer classification (commercial, administrative, or private)
- 4) Type of stock used
- 5) Number of stock
- 6) Number of people
- 7) Name and location of forage areas where stock grazed
- 8) Number of nights spent in each forage area
- 9) Name of party on wilderness permit

After each trip these forms are completed and returned to the meadow monitoring specialist at SEKI and the information is then entered into a database. This years database file is named "*stock03.mdb*", and contains approximately 525 records of various private, commercial, and administrative overnight stock trips.

In previous years (prior to 1998) there was some confusion over the terminology used to calculate use levels presented in the annual stock use report. It appears as though the term stock night had been used interchangeably with animal unit night, and it was not always clear which unit was being referred to. The following definitions are intended to help clarify these terms and to set the stage for the data that follow in the rest of the report.

Conventionally, an overnight stay by a pack animal is defined in terms of a common currency, the *animal unit night*. An *animal unit* is equal to approximately 1,000 pounds of grazing animal; an animal unit night refers to an overnight stay by that animal. In range management almost everything is compared to cows, which at approximately 1,000 pounds are rated at 1.00 animal unit night. According to this system, an overnight stay by a horse or mule is defined as 1.25 animal unit nights. An overnight stay by a burro is 0.50 of an animal unit night, and a llama is 0.35 of an animal unit night. The use of animal unit nights reflects the variation in forage consumed by these different sized animals, and allows for comparison with other grazing systems. An adult horse consumes approximately 25% more forage than an adult cow in a 24 hour period, a llama consumes 35% of that of a cow, and a burro about 50%. Thirty animal unit nights are equal to one *animal unit month* (AUM) which is the amount of dry forage required by

one animal unit for one month based on a standardized forage allowance of 26 pounds per day. The use of these standardized units allows range managers to compare use across systems and to establish grazing capacities based on the varying consumption of forage by different types of animal.

For the purposes of this report, and to make the data accessible to all users, a *stock night* represents an overnight stay by any pack animal, without reference to the more conventional animal unit night. In order to facilitate comparison between years, the statistics that follow are reported in stock nights. Where the data allow, summary figures are reported in both animal unit and stock nights in order to provide as much information as possible. When referring to earlier reports, note that there may be discrepancies in the numbers reported due to use of different terminology. Discussions of grazing capacity, as in the annual Residual Biomass Monitoring Report, always rely on the more conventional animal unit night.

The following figures represent overnight visits by stock only, they do not include stock use from day trips, or drop trips which were completed in one day.

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## Results

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**User compliance.** Of the 14 commercial pack stations operating in Sequoia and Kings Canyon during 2003 (one concessioner, 13 Incidental Business Permit, or IBP, holders), seven submitted their annual stock use reports within a week of the October 31 due date specified in their contract or permit. Six responded following one or two phone calls requesting the delinquent data. The remaining IBP failed to submit their use data until early June of 2003.

Of the 47 trips made by private parties during 2003, 10 users returned their cards without further prompting at the end of the season. Another ten responded to a written request for their use data sent out in the fall. The remaining trips were documented by cross referencing staff observations with the wilderness permit database. As during 2000, 2001, and 2002 our ability to identify private vs. commercial users was enhanced by having permit issuers note the type of user on the permit at the trailhead.

**Reported use.** Reported recreational and administrative stock use during the summer of 2003 totaled **8,218 stock nights**, or 9,607 animal unit nights. This represents a decrease of 9.5% compared to 2002, which had a total of 9,076 stock nights reported. Relative to 2002, reported commercial use decreased by 4.2%, while reported private use increased by 1.5%. Administrative use decreased by 4.1%.

The following statistics describe 2003 stock use by stock type, user type, month, and forage area; and compares that use with past years for which data are available. The letter next to the year indicates the type of snow pack winter (d=dry, n=normal, w=wet) that preceded the field season. According to the amount of moisture in the snowpack, we categorize a year as one of the following:

- 1) **Dry** (less than 50% of average precipitation)
- 2) **Normal** (51% to 150% of average precipitation)
- 3) **Wet** (more than 150% of average precipitation)

The snowpack is the best indicator we have of the amount of moisture the meadows received. Meadow opening dates for a particular season are adjusted based on snowpack in the high country during the preceding winter.

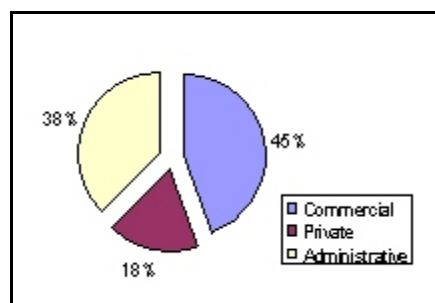
Based on snow survey data, 2003 was characterized a normal to dry year in the southern Sierra Nevada, with a May 1 snowpack ranging from 48% to 95% of normal in Sequoia and Kings Canyon drainages. This resulted in the Kings and Kern drainages being characterized as 'normal' while the Kaweah drainages were considered 'dry', and each park used the appropriate opening dates for their condition class. However, late spring precipitation resulted in a number of montane meadows staying wet past their anticipated opening dates, and the actual opening dates

were delayed accordingly. In Sequoia National Park, this meant that grazing in the meadows on the Hockett Plateau was delayed by three weeks, from June 10 to July 1. In Kings Canyon National Park, grazing in the meadows in Deadman Canyon was delayed due to wet conditions by 14 to 18 days, and in both Junction Meadow and Baxter Creek Drift Fence Meadow by approximately one week. Drier conditions led to early opening in the Glacier Valley Meadows, which opened on July 23 as opposed to the anticipated August 1. As in 2002, most passes were snow-free and stream crossings relatively manageable at the start of the season. Unlike previous years, frequent thunderstorms made for wet conditions throughout the summer.

**Types of use.** Use is divided into three categories: *Commercial* users are people or companies that pack in stock as a paid service. Companies or individuals of this type are required to hold a commercial operators license with the park. *Private* use is packing done by an individual or with his or her friends or family. Only a standard backcountry permit is required for this type of use. *Administrative* users are those that are employed by the National Park Service and who use pack stock in order to carry out their official duties.

**Table 1 and Figure 1. Proportional types of stock use in 2003.**

2003	%	Stock Nights	Animal Unit Nights	Animal Unit Months
<b>Commercial</b>	45	3,674	4,143	138
<b>Private</b>	18	1,465	1,616	54
<b>Administrative</b>	38	3,079	3,848	128
<b>TOTAL</b>	<b>100</b>	<b>8,218</b>	<b>9607</b>	<b>320</b>



**Supplemental feed.** Reported use of supplemental feed (hay, pellets or grain packed in lieu of grazing) increased significantly from 217 stock nights in 2002 to 493 stock nights in 2003. Commercial users continued to report proportionally more use of supplemental feed than private or administrative users, although 2003 saw a significant increase in private use of supplemental feed.

**Table 2. Reported use (stock nights) of supplemental feed by user group 1997 - 2003 .**

	2003	2002	2001	2000	1999	1998	1997
<b>Commercial</b>	425	135	168	250	51	256	99
<b>Private</b>	37	16	2	4	26	39	12
<b>Administrative</b>	31	66	97	27	0	44	31
<b>TOTAL</b>	<b>493</b>	<b>217</b>	<b>267</b>	<b>281</b>	<b>77</b>	<b>339</b>	<b>142</b>

**Historical Use** (1955 to present). Reported use of stock at Sequoia & Kings Canyon National Parks from 1955 to the present is listed below. Information from years prior to 1955 likely exists but has yet to be located and summarized. As new information arises it will be incorporated into subsequent reports. Refer to **Table 3** and **Figure 2**. It is important to note that these reflect

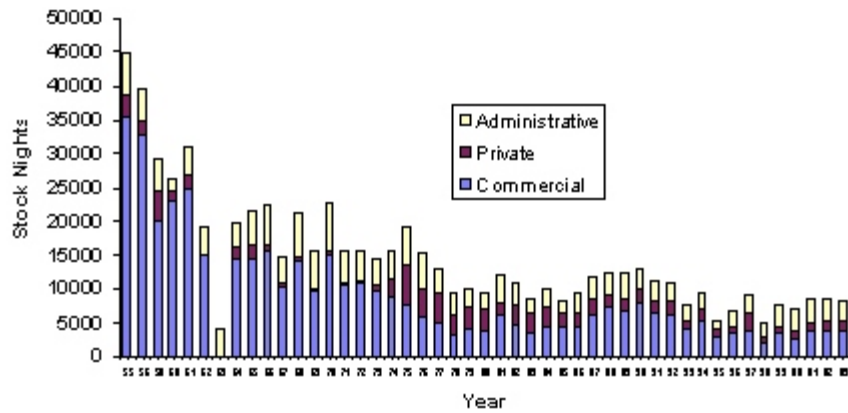
reported use; due to inconsistencies in reporting, these may be quite different from actual use, especially during earlier years.

Administrative grazing at the Ash Mountain pastures is not included in these figures. Up to 90 horses and mules may be grazing at Ash Mountain at any one time. Over the years, grazing at these pastures has ranged from approximately 300 to 700 AUM's or 8000 to 21000 animal unit nights per year. In most years, almost all of the park stock spend the winter (November to May) at the Pixley Wildlife Refuge in the San Joaquin Valley, returning to the Ash Mountain Pasture in early spring.

**Table 3. Historical Reported Stock Use at Sequoia and Kings Canyon National Parks.** The letter next to the year indicates the type of snowpack year it was: w=wet, n=normal, d=dry. **Stock Nights** refer to an overnight stay by an animal regardless of type. **Animal Unit Months (AUM's)** are calculated by dividing the number of days in a month (30) into the number of animal unit nights; to calculate animal unit nights, multiply this figure by 30 (see text for definition).

YEAR	Commercial			Private			Administrative			Total	
	Stock Nights	%	AUMs	Stock Nights	%	AUMs	Stock Nights	%	AUMs	Stock Nights	AUMs
2003n/d	3674	45	138	1465	18	54	3079	38	128	8218	320
2002n/d	3834	45	143	1444	17	53	3210	38	134	8517	351
2001n	3514	43	142	1061	13	42	3594	44	169	8169	333
2000n	2648	38	98	1062	15	41	3261	47	136	6971	275
1999n	3467	45	134	974	12	40	3339	43	139	7780	313
1998w	1806	36	66	1039	21	41	2131	43	89	4976	196
1997n	3703	40	146	2969	33	113	2429	27	101	9101	360
1996n	3608	54	148	953	14	37	2147	32	89	6708	274
1995w	2746	52	115	1449	27	60	1128	21	23	5323	222
1994d	5328	56	213	1743	18	70	2431	26	101	9502	384
1993w	4200	54	140	1256	16	42	2362	30	79	7818	261
1992d	6112	55	204	1988	18	66	3007	27	100	11107	370
1991n	6619	59	221	1547	14	52	3036	27	101	11202	374
1990d	7947	62	265	1864	14	62	3084	24	103	12895	430
1989d	6810	55	227	1530	12	51	3990	31	133	12330	411
1988n	7350	60	245	1770	14	59	3210	26	107	12330	411
1987d	6000	51	200	2430	21	81	3300	28	110	11730	391
1986w	4500	48	150	1860	20	62	2940	32	98	9300	310
1985n	4530	56	151	1980	24	66	1620	20	54	8130	271
1984	4530	45	151	2700	27	90	2910	28	97	10140	338
1983	3420	41	114	3180	38	106	1740	21	58	8340	278

YEAR	Commercial			Private			Administrative			Total	
	Stock	%	AUMs	Stock	%	AUMs	Stock	%	AUMs	Stock	AUMs
	Nights			Nights			Nights			Nights	
1982	4740	43	158	3120	28	104	3150	29	105	11010	367
1981	6120	51	204	1950	16	65	3870	32	129	11940	398
1980	3870	41	129	3060	32	102	2550	27	85	9480	316
1979	4110	41	137	3120	31	104	2790	28	93	10020	334
1978w	3390	36	113	2700	29	90	3360	35	112	9450	315
1977d	4860	38	162	4500	35	150	3540	28	118	12900	430
1976d	5790	38	193	4110	27	137	5400	35	180	15300	510
1975n	7650	40	255	6060	31	202	5610	29	187	19320	644
1974n	8730	55	291	2850	18	95	4260	27	142	15840	528
1973w	9600	67	320	1050	7	35	3630	26	121	14280	476
1972d	10770	69	359	570	4	19	4200	27	140	15540	518
1971n	10500	67	350	570	4	19	4500	29	150	15570	519
1970n	14940	66	498	780	3	26	7050	31	235	22770	759
1969w	9540	60	318	240	2	8	6000	38	200	15780	526
1968n	13980	66	466	720	3	24	6360	30	212	21060	702
1967n	10230	69	341	540	4	18	4110	27	137	14880	496
1966d	15420	69	514	930	4	31	6000	27	200	22350	775
1965n	14520	67	484	1920	9	64	5130	24	171	21570	719
1964n	14550	74	485	1560	8	52	3600	18	120	19710	657
1963n	0	0	0	0	0	0	3900	100	130	3900	130
1962n	15000	78	500	0	0	0	4200	22	140	19200	640
1961d	24990	80	833	1890	6	63	4200	14	140	31080	1036
1960n	22920	87	830	1500	6	50	1980	8	66	26400	880
1958n	20280	69	676	4230	15	141	4500	16	150	29010	967
1956n	32820	83	1094	2190	6	73	4350	11	145	39360	1312
1955n	35490	79	1183	3180	7	106	6150	14	205	44820	1494

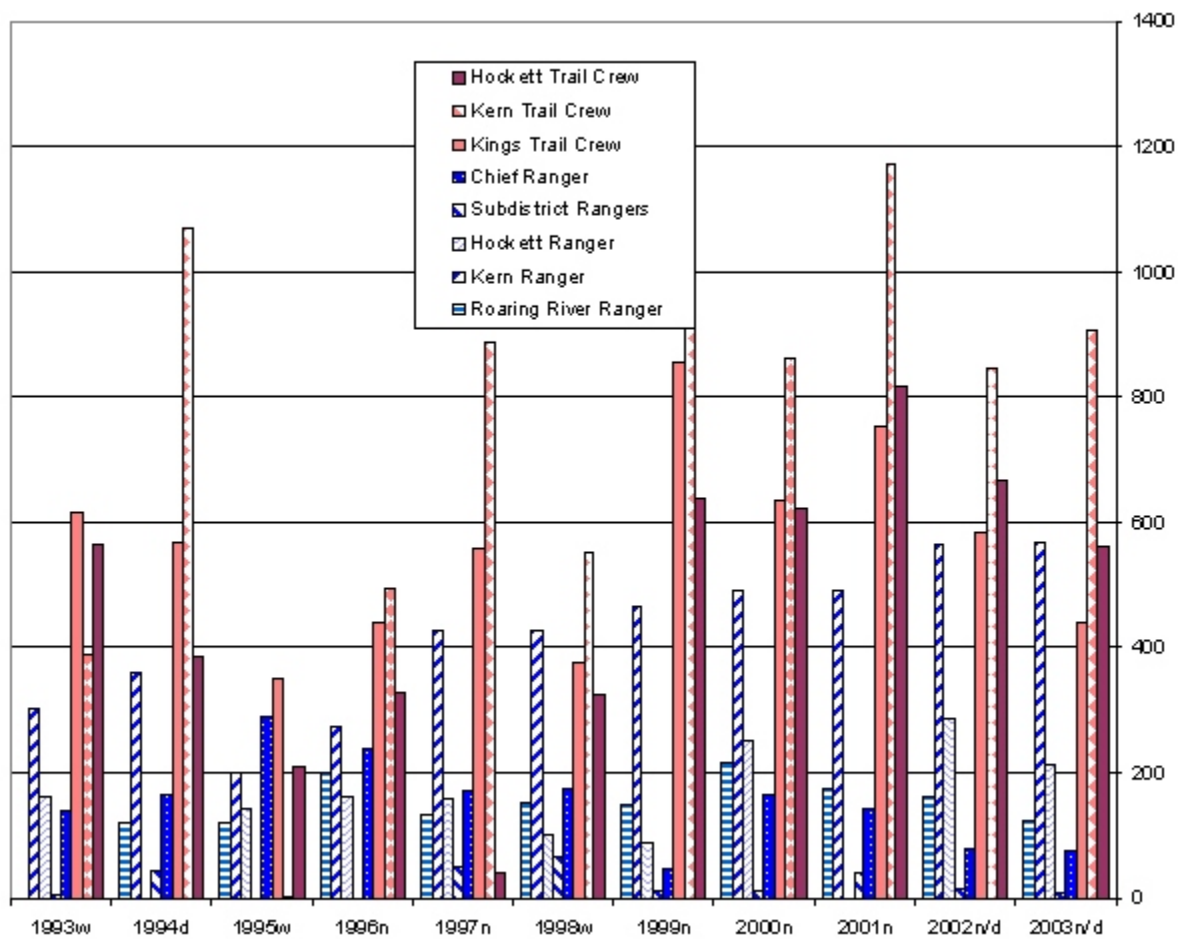


**Figure 2:** Reported Stock Use in Wilderness Meadows of Sequoia and Kings Canyon National Parks, 1955-2003

**Table 4.** Administrative Use (Stock nights). This includes all reported use by National Park Service personnel in the wilderness meadows. It does not include Ash Mountain grazing.

	2003n/d	2002n/d	2001n	2000n	1999n	1998w	1997n	1996n	1995w	1994d
Cedar Grove Rangers	7	0	0	2	0	15	51	0	0	0
Grant Grove Rangers	0	0	0	2	0	51	0	0	0	0
Hockett Ranger	215	300	0	253	86	100	159	160	142	0
Hockett Trail Crew	562	908	816	622	637	325	41	330	208	384
Kern Trail Crew	906	846	1172	861	1093	552	888	494	3	1068
Kern Ranger	569	559	489	492	465	425	429	274	200	360
Kern Subdistrict Ranger	0	0	40	10	12	0	0	0	0	44
Kings Trail Crew	442	599	756	634	854	378	558	440	351	569
Roaring River Ranger	122	160	177	218	147	154	133	200	120	120
Squad Trip	90	0	72	95	na	102	90	108	86	166
Miscellaneous	76	95	74	72	45	74	80	130	202	0
<b>TOTAL</b>	<b>2928</b>	<b>3467</b>	<b>3596</b>	<b>3261</b>	<b>3339</b>	<b>2176</b>	<b>2429</b>	<b>2136</b>	<b>1312</b>	<b>2711</b>





**Figure 3.** Administrative stock use by user.

**Table 5.** Commercial Use (Stock Nights). These numbers include those nights where supplemental feed was provided. Totals for previous years may also include use reported by stations no longer conducting business in Sequoia and Kings Canyon National Parks.

PACKER	2003n/d	2002d/n	2001n	2000n	1999n	1998w	1997n	1996n	1995w	1994d	1993w
Balch Park	219	462	193	222	156	154	431	259	71	313	124
Bishop Pack Outfitters	65	240	134	35	329	48	139	158	246	60	0
Cedar Grove PS	965	797	1127	528	887	427	669	651	573	1202	1090
Clyde Pack Outfits	10	14	0	8	17	0	14	16	48	29	86
Cottonwood PS	312	133	247	233	104	84	285	282	46	32	270
D & F Pack Station	57	0	0	60	0	0	0	0	110	0	0
Glacier Pack Train	0	0	0	0	0	7	42	0	0	77	115
Golden Trout PS	121	71	68	79	641	62	391	147	18	207	79
High Sierra PS	49	77	235	202	109	74	154	174	32	83	113
Horse Corral PS	224	296	408	161	176	30	212	231	114	834	450
Leelin Llama Treks	0	0	60	9	24	140	0	0	0	0	0
Llamas of Circle Home	0	0	0	0	0	8	28	14	0	0	0
Lost Valley Camp PS	0	40	65	54	62	89	41	89	23	161	80
Mineral King PS	0	344	151	166	8	80	111	524	643	1112	845
Muir Trail Ranch	5	0	3	4	23	26	7	8	14	24	6
Natl. Outdoor Leadership School	0	0	0	33	0	0	0	0	0	0	0
Pine Creek PS	27	15	0	18	0	0	4	68	20	75	57
Rainbow Pack Outfitters	147	62	103	62	na	28	77	174	116	0	0
Red's Meadow PS	0	75	82	174	0	0	52	0	0	90	114
Rock Creek PS - Whitney Pack Train	543	424	636	176	607	416	683	365	266	791	417
Sequoia Kings Pack Train	221	145	253	4	29	41	91	389	406	0	0
Three-Corner-Round	600	528	0	420	110	0	90	0	0	0	90
Trailhead & Co. (Llamas)	0	0	0	0	185	92	85	55	0	0	0
Windrider Llama Treks	0	0	0	0	0	0	36	0	0	0	0
Wolverton Pack Station	0	99	5	0	0	0	0	0	0	0	0
Wyman, Bill	119*	144*	64*	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>3462</b>	<b>3988</b>	<b>3292</b>	<b>2648</b>	<b>3467</b>	<b>1806</b>	<b>3624</b>	<b>3608</b>	<b>2746</b>	<b>5328</b>	<b>4200</b>

\*Reported as private use

**Table 6.** Types of Stock. Horses and mules remained the primary type of stock used in 2003, with burros and llamas making up a small percentage of total use. Note the sharp increase in reported use of burros in 2002 and 2003 over previous years.

Year	Horses/Mules		Burros		Llamas	
	Stock	Nights %	Stock	Nights %	Stock	Nights %
2003n/d	7,356	89.5	738	9.0	124	1.5
2002n/d	8,190	90.2	766	8.4	120	1.3
2001n	7,892	96.6	162	2.0	115	1.4
2000n	6376	91.4	500	7.2	95	1.4
1999n	7,370	94.7	189	2.4	221	2.8
1998w	4,572	91.8	143	2.9	261	5.3
1997n	8,469	93.1	141	1.5	491	5.4
1996n	6,641	99.7	0	0	67	0.3
1995w	5,279	99.2	36	0.6	10	.002
1994d	9,120	98.5	257	1.1	125	0.4
1993w	7,427	95.0	212	2.7	179	2.3

**Table 7.** Monthly Use and Percentage of Entire Season, May-October

	May		June		July		August		Sept.		Oct.	
	Nights	%	Nights	%	Nights	%	Nights	%	Nights	%	Nights	%
2003n/d	0	0	424	5.4	2603	31.7	3348	40.7	1634	19.8	209	2.5
2002n/d	0	0	880	9.7	3058	33.7	3118	34.4	1879	20.7	141	1.6
2001n	6	0.1	536	6.6	2190	26.8	3730	45.7	1418	17.4	289	3.5
2000n	0	0	1134	16.3	2005	28.8	2492	35.7	1240	17.8	100	1.4
1999n	0	0	663	8.5	2133	27.4	3243	41.7	1537	19.8	204	2.6
1998w	0	0	67	1.3	508	10.2	2762	55.5	1439	28.9	64	1.3
1997n	8	0.08	574	6.3	2012	22.1	3739	41.1	1750	19.2	257	2.8
1996n	0	0	351	5.2	1749	26.1	2929	44.0	1431	21.3	248	3.7
1995w	0	0	0	0	312	4.7	2565	38.5	2135	32.1	311	4.7
1994d	6	0.02	647	6.8	2691	28.3	4348	45.8	1766	18.6	44	0.5
1993w	0	0	110	1.4	1109	14.2	4103	52.5	2271	29.0	225	2.9

**Number of Areas Receiving Use.** The number of areas used may be used as an indication of the dispersion of grazing. Variation in the number of areas used, however, may also reflect differences in reporting. Use was reported for a total of 113 forage areas in 2003, compared to 109 in 2002 (a list showing the number of commercial, private, and administrative stock grazing nights for each forage area is presented in Appendix 2). **Commercial** users reported grazing in a total of 65 areas, **private** parties in 61 areas, and **administrative** users in 47 areas.

**Table 8.** Number of forage areas utilized by user group.

	<u>Commercial</u>	<u>Private</u>	<u>Administrative</u>	<u>Overall</u>
<b>2003n/d</b>	65	61	47	113
<b>2002n/d</b>	69	58	46	109
<b>2001n</b>	78	49	46	115
<b>2000n</b>	72	53	52	113
<b>1999n</b>	63	31	46	92
<b>1998w</b>	52	43	35	93
<b>1997n</b>	73	92	44	135
<b>1996n</b>	91	27	33	107
<b>1995w</b>	60	62	17	96
<b>1994d</b>	105	76	37	139
<b>1993w</b>	93	66	35	120

**Areas of High Use.** Based on reported stock nights, the following forage areas received heavy use in 2003. In previous years, heavy use was defined as use exceeding 75% of the estimated carrying capacity of a meadow. Until the system of estimating carrying capacity of these meadows is further developed and refined, heavy use will be defined based solely on the amount of use an area receives. Note that forage areas differ in their ability to withstand use and thus may be heavily used but not overgrazed. These meadows should, however, be watched closely for signs of deterioration.

The twenty five forage areas that received the heaviest use overall (by all user groups combined) are shown in Table 9. The **ten** areas most heavily used (total number of stock nights) in 2003 by each user group (commercial, private, and administrative) are presented in the three tables following.

**Table 9.** Stock nights in the 25 most heavily used areas in 2003 for commercial, private and administrative use combined, with previous years use numbers included for reference.

Meadow		2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
86-7	Lewis Camp Large Pasture	530	517	674	584	805	441	633	340	218	418
90-5.1	Hockett Meadow	323	365	342	81	380	267	36	281	238	451
86-1	Kern Bridge Camp	300	320	257	45	168	68	88	112	103	120
71-3.2	Middle Ranger Meadow	289	0	0	3	3	24	1	33	0	32
90-10	South Fork Meadow	289	323	138	140	60	30	122	288	145	450
84-2	Lower Rock Ck Xing Mdw	267	203	11	28	105	66	110	28	177	0
83-4	Upper Crabtree Meadow	267	234	309	129	244	12	325	100	23	150
65-4	Upper Bubbs Creek	246	96	11	36	12	3	17	87	0	0
80-3	Tyndall Creek Meadows	240	195	371	135	286	89	215	118	50	214
58-2	Woods Creek Crossing	233	153	202	0	44	108	68	8	0	60
66-3	Junction Meadow	219	132	190	178	64	96	228	20	105	229
90-13	Slim's Meadow	180	89	0	138	0	110	0	0	0	0
81-1	Wright Creek Drainage	158	103	104	9	34	6	38	0	48	14
53-4.2	Glacier Valley Meadows	156	44	106	30	0	40	6	215	33	35
67-1	East Lake Meadow	149	149	110	106	101	137	170	129	91	62
80-4	Sheep Camp Meadows	145	14	16	0	0	0	0	70	20	0
86-8	Kern Station Small Pasture	139	92	134	106	101	80	130	46	32	72
89-9	Middle Rattlesnake Canyon	128	146	152	60	5	143	4	176	52	40
72-8	Sugarloaf Meadow	123	195	128	196	230	85	191	125	111	74
90-11	South Fork Pasture	122	180	107	100	84	0	158	72	57	24
63-1	Charlotte Creek Meadows	118	58	29	66	67	36	24	111	45	6
33-1	Evolution Meadow	117	226	198	187	176	178	187	220	255	168
79-1	Cold Springs Camp Area	110	91	151	72	0	88	0	0	0	132
87-2	Little Upper Big Arroyo	110	0	0	7	0	14	0	0	0	12
70-5	Big Wet Meadow	109	354	275	21	83	6	17	4	18	29

**Table 10.** Number of commercial stock nights in the ten areas receiving the heaviest commercial use in 2003.

Meadow	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
65-4 Upper Bubbs Creek	218	96	6	36	12	3	17	87	0	0
83-4 Upper Crabtree Meadow	215	168	307	111	229	0	273	100	23	143
90-10 South Fork Meadow	159	246	118	122	60	0	20	193	71	261
58-2 Woods Creek Crossing	159	90	13	0	0	44	0	8	0	60
84-2 Lower Rock Ck Xing Mdw	152	100	11	7	0	37	36	28	167	0
81-1 Wright Creek Drainage	149	99	104	9	24	0	38	0	48	0
80-3 Tyndall Creek Meadows	145	121	243	120	144	20	128	58	38	123
80-4 Sheep Camp Meadows	140	14	16	0	0	0	0	70	20	0
67-1 East Lake Meadow	131	133	105	106	101	125	156	129	47	16
66-3 Junction Meadow	122	119	161	142	58	40	155	20	64	226

**Table 11.** Number of private stock nights in the ten areas receiving the heaviest private use in 2003, with previous years use numbers included for reference.

Meadow	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
71-3.2 Middle Ranger Meadow	281	0	0	0	0	18	1	0	0	0
90-10 South Fork Meadow	130	77	20	18	0	30	102	95	74	189
90-5.1 Hockett Meadow	97	8	0	2	6	3	26	0	78	15
90-11 South Fork Pasture	92	28	38	0	0	0	78	0	0	0
69.5.1 Scaffold Mdw Tourist Past	63	62	102	139	139	76	46	233	48	142
90-9 Lower South Fork Meadow	53	48	3	20	0	120	15	0	0	26
72-8 Sugarloaf Meadow	48	91	128	118	207	85	148	98	105	49
71-2 Grave Meadow	42	0	0	25	21	48	0	125	110	0
53-4.2 Glacier Valley Meadows	40	24	32	0	0	14	6	0	0	35
73-4 Lost Lake	39	12	0	0	0	0	73	32	6	24

**Table 12.** Number of administrative stock nights in the ten areas receiving the heaviest administrative use in 2003, with previous years use numbers included for reference.

Meadow	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
86-7 Lewis Camp Large Pasture	522	499	630	551	492	383	491	296	122	390
86-1 Kern Bridge Camp	286	300	257	37	168	5	88	94	8	94
90-5.1 Hockett Meadow	226	336	342	79	374	264	10	161	41	252
90-13 Slim's Meadow	180	89	0	138	0	0	0	0	0	0
89-9 Middle Rattlesnake Canyon	128	133.5	152	48	5	133	4	142	0	6
87-2 Little Upper Big Arroyo	110	0	0	0	0	14	0	0	0	0
83-8 Sandy Meadow	100	195	130	144	108	143	176	168	0	0
86-8 Kern Station Small Pastur	100	70	122	102	92	66	88	46	32	72
69-2 West Side Roaring River	97	75	22	13	14	51	0	0	0	0
79-1 Cold Springs Camp Area	96	91	151	72	0	88	0	0	0	132

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## Discussion

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Reported recreational and administrative stock use during the summer of 2003 totaled **8,218 stock nights**, or 9,607 animal unit nights. This represents a decrease of 9.5% compared to 2002, which had a total of 9,076 stock nights reported. Relative to 2002, reported commercial use decreased by 4.2%, while reported private use increased by 1.5%.

The decrease in commercial use reflects in part the closure of the Mineral King Pack Station (due to health issues), and fire activity in the Roaring River area (Horse Corral Pack Station) and in the Kern Canyon (Balch Park Pack Station). In contrast, Cedar Grove, Cottonwood, Golden Trout, Rainbow, Rock Creek and Sequoia-Kings pack stations and Three Corner Round Pack Outfit all reported significantly more use in SEKI during 2003 than in 2002.

Reported use of supplemental feed in lieu of grazing increased significantly among commercial and private users, but use by administrative packers decreased relative to 2002. Horses and mules remained the primary type of stock used, accounting for over 90% of total use. Llama use stayed the same relative to that reported for 2002, and continued to remain significantly below that reported for 1999. Reported burro use reached its highest level in the past 14 years, accounting for 9% of total stock use; note that all of the burro use is attributed to three users (Three Corner Round Pack Outfit and two private operators).

Administrative use continued to be focused on meadows adjacent to stock supported ranger stations (Kern, Hockett and Roaring River) and those areas serving as foci for trail crews during the season (Junction Meadow (Bubbs Creek), Lower Rock Creek Crossing, Slim's Meadow, Cold Springs Camp Area, Middle Rattlesnake Canyon, Little Upper Big Arroyo, Sandy Meadow, West Side Roaring River). As in previous years, Lewis Camp Large Pasture received the greatest amount of administrative stock use, while administrative use of Little Upper Big Arroyo and Slims Meadow represented departures from areas regularly used by park packers over the past ten years.

Significant increases in use relative to 2002 were seen in a number of areas, including the following: McClure Meadow, Glacier Valley Meadows, Halfmoon Meadow, Woods Creek Crossing, Charlotte Creek Meadows, Upper Bubbs Creek, Junction Meadow (Bubbs), Grave Meadow, Middle Ranger Meadow, Sheep Camp Meadow, Wright Creek Drainage, Little Upper Big Arroyo, Lower Lost Canyon Meadows, Upper Rattlesnake Canyon, Hockett Meadow, and Slim's Meadow. Tyndall Creek Meadows, Lower Rock Creek Crossing Meadow, Lewis Camp Large Pasture, Kern Station Small Pasture, South Fork Meadow, and South Fork Pasture experienced high use for two or more years in a row. Meadows of concern which showed a significant decrease in use during 2003 included Simpson Meadow, East Lake Meadow, Scaffold Meadow Tourist Pasture, Big Wet Meadow, Austin Camp Meadows, Redwood Meadow, Lower Crabtree Meadow, Sandy Meadow, Nathan's Meadow, Penned-up Meadow, Kern Bridge Camp, and Upper and Lower Funston Meadows.

**Data management.** Lack of response and/or a mechanism that elicits a response from private stock users remains a problem. As in 2002, trailhead personnel were again asked to indicate on each permit whether it was being issued to a commercial or private stock group; this improved our ability to identify private users and thus limit the number of redundant information requests sent out to clients of commercial packers. As in 2000, 2001, and 2002 commercial packers were also required to include the name of the client who received the permit so that we can better correlate field observations with reported use. Both of these practices will be continued in 2004. Last year a proposal was made to require commercial packers to report all drop and spot trips, including those that do not include grazing, with their annual reports; this was not adopted in 2003, but is recommended for 2004. This would allow us to better track stock use patterns overall, and streamline the process of winnowing through the permit database.

A number of commercial stock use reports appeared to have gone astray in the in-park mail system this year,

creating an inconvenience for the packers who must re-submit their numbers and delays in the preparation of this report. I suggest requiring commercial packers (IBP and concessioners) to provide their reports directly to the concessions office, as the reports are a condition of their incidental business permits which are issued out of that office.

Although most commercial pack stations submitted their annual reports after a single warning letter was sent, delayed IBP reports remain a significant factor in the delayed preparation date of this summary. One pack station (Sequoia-Kings Pack Station) failed to submit their use statistics until June of this year, causing significant changes in the resulting analysis from the January draft of this report. Wilderness and trailhead rangers are asked to continue to maintain their stock use observation forms, which are invaluable for verifying use reports and gaining a more realistic estimate of actual use for specific forage areas.

As in previous years, we found that many U.S. Forest Service (USFS) wilderness permit issuing stations are not distributing SEKI stock-use cards to packers entering the Parks from USFS trailheads. As a result, some private packers are unaware of the requirement or procedures for reporting their stock use. As discussed in previous years, stock users entering the park from USFS trailheads are not receiving current information on packstock use in the national parks, either, and this is leading to a lack of preparedness and subsequent resource impacts.

Note that this report supercedes all previous stock use reports from Sequoia and Kings Canyon National Parks, as additional data are acquired and errors are corrected.

As this report relies on diverse sources of data, and as the author is certainly not immune to the making of errors, please submit corrections or comments regarding any questionable portions of this report. If you are aware of use that has not been captured, or if it appears that use has been either under or over reported, please do not hesitate to bring it to my attention. Even if it is not possible to determine the correct number, it is helpful to annotate areas of uncertainty wherever they occur. I will endeavor to update the stock use database as corrections are submitted; note that this practice results in variations in the totals from one year to the next as additional data become available.

**Acknowledgements.** I wish to thank all of the stock users who took the time to send in their reporting forms this year, and also the wilderness and trailhead rangers who kept track of stock use nights in their areas. These observations are essential to monitoring use patterns. Data entry and QA/QC procedures were once again cheerfully carried out by Biological Technician Catie Karplus, who continued in her role as seasonal meadow monitoring technician in 2003. Funding for her position was provided in part by the concessions office, and this support is greatly appreciated. I also wish to recognize the additional effort made by trailhead rangers to annotate permits for us, and by the wilderness office staff who set aside packstock related permits for us.



**Appendix 1. Samples of stock use reporting forms used during 2003; the small card is distributed to private parties with their wilderness permit, and is stamped and addressed for ease of return.**

**OVERNIGHT STOCK USE REPORT  
COMMERCIAL PACK STATIONS AND INCIDENTAL BUSINESS PERMIT HOLDERS**

Sequoia and Kings Canyon National Parks  
47040 Generals Highway  
Three Rivers, CA 93271

**User Type** (circle one):      Commercial Outfitter                  Private Party                  NPS Stock

**Name of Pack Station or IBP holder:** \_\_\_\_\_

**Type of Stock** (circle one):    Horses/Mules                          Burros                          Llamas

Tri	Date	Name of Party	Meadow Area Grazed	Meado	# of	# of	# of
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	/						
	/						
	/						
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	/						
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Report prepared by: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

**Please complete all requested information and mail to the Wilderness Office as soon as you finish your trip, or no later than October 31, 2003. Indicate if stock were not released to graze, but instead were tied and fed. Include information about types of stock used (llamas or burros) if you did not use horses or mules. Have a GREAT trip!!**

**cuserrep.frm**

**STOCK USE REPORTING CARD***Sequoia and Kings Canyon National Parks*

Please circle one: Horses/mules

Burros

Llamas

Please circle one: Commercial Packer

Private Party

NPS Stock

Date	Forage Area Used That Night (name of meadow, camp, etc.)	Forage Area #	# of stock	# of nights	# of people

Form completed by (please print): \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

One location per line. Please be specific in naming forage areas. Please return by Oct. 31.

Front:

UNITED STATES  
DEPARTMENT OF THE INTERIOR      *AN EQUAL OPPORTUNITY EMPLOYER*  
NATIONAL PARK SERVICE  
SEQUOIA AND KINGS CANYON NATIONAL PARKS  
47050 GENERALS HIGHWAY  
THREE RIVERS, CALIFORNIA 93271

-----  
Official Business  
Penalty For Private Use \$300

Wilderness Office  
Sequoia and Kings Cyn National Parks  
47050 Generals Highway  
Three Rivers, CA 93271

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
28-1 Piute Creek	0-0-0 0	0-0-0 0	30-0-0 30	0-0-0 0	0-3-0 3	0-0-0 0	0-0-0 0
28-2 Aspen Meadow	0-0-0 0	0-16-0 16	6-0-0 6	0-0-0 0	28-0-0 28	50-0-0 50	11-0-0 11
28-3 Cony Camp	4-0-0 4	31-0-0 31	8-0-22 30	36-4-96 136	3-0-0 3	8-0-0 8	16-0-21 37
28-4 Franklin-Montgomery Mdw	0-0-0 0	12-0-0 12	30-0-12 42	9-0-0 9	35-0-0 35	11-0-0 11	8-0-0 8
28-6 Hell-For-Sure Jct Mdws	0-0-0 0	10-15-0 25	46-0-0 46	3-0-0 3	40-0-0 40	19-0-0 19	12-0-0 12
28-7 Upper Goddard Cyn	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	2-0-0 2	30-3-0 33
33-1 Evolution Meadow	117-0-0 117	177-17-32 226	150-42-6 198	181-6-0 187	167-9-0 176	178-0-0 178	187-0-0 187
33-2 McClure Meadow	58-0-16 74	27-0-11 38	43-3-32 78	52-10-12 74	73-6-15 94	19-0-0 19	53-31-0 84
33-3 Colby Meadow	6-0-0 6	44-0-0 44	30-7-0 37	28-3-0 31	39-0-10 49	13-0-0 13	65-0-0 65
33-4 Darwin Meadow	0-0-0 0	0-0-0 0	30-2-0 32	14-0-14 28	37-10-72 119	8-3-0 11	47-0-0 47
33-5 Lake 11,106	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
33-6 Darwin Bench	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
33-8 McGee Canyon	0-0-0 0	0-0-0 0	0-4-0 4	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0
33-9 Emerald Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
34-1 Evolution Lake	14-0-0 14	0-3-0 3	0-0-0 0	0-0-0 0	12-0-0 12	0-0-0 0	0-0-0 0
34-2 Sapphire Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
34-3 Huxley Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
38-1 Upper Blue Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-80 80
38-2 Blue Canyon Meadow	0-0-8 8	6-0-15 21	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0	0-0-0 0
38-3 Lower Blue Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
39-1 Upper LeConte Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	22-0-0 22	0-0-0 0	0-3-0 3
39-2 Big Pete Meadow	96-0-0 96	137-0-0 137	74-0-10 84	10-0-7 17	29-0-0 29	36-0-0 36	141-9-0 150
39-3 Little Pete Meadow	0-0-14 14	15-0-45 60	48-0-0 48	89-2-38 129	38-0-142 180	4-0-0 4	15-0-0 15
39-4 Ladder Camp	16-0-0 16	27-0-0 27	4-0-0 4	8-0-0 8	0-0-0 0	0-0-0 0	0-0-0 0
39-5 Grouse Meadow	19-0-0 19	8-0-20 28	13-0-18 31	5-10-5 20	22-0-87 109	4-0-0 4	84-3-198 285
39-6 Palisade Creek Junction	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
39-7 Stillwater Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
39-8 Deer Meadow	19-0-0 19	5-0-10 15	32-0-0 32	9-8-9 26	33-0-24 57	0-0-0 0	59-0-0 59
42-1 Dusy Creek	17-0-0 17	11-0-0 11	0-0-0 0	5-0-0 5	24-0-12 36	0-0-0 0	28-3-0 31
42-2 Lower Dusy Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
42-3 Upper Dusy Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
42-4 Rainbow Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
45-1 Palisade Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	22-0-0 22	0-0-0 0	28-3-0 31
46-1 Upper Basin Meadows	21-0-0 21	0-0-0 0	133-0-0 133	48-0-0 48	39-0-0 39	0-0-0 0	0-3-0 3
46-2 South Fork Kings River	40-0-0 40	21-0-0 21	43-0-0 43	0-4-16 20	0-0-12 12	0-0-22 22	26-0-11 37
46-3 Bench Lake/JMT Jct.	31-0-0 31	8-10-6 24	37-0-0 37	36-2-0 38	0-0-14 14	4-0-0 4	0-0-0 0
46-4 Bench Lake	5-0-0 5	0-0-0 0	7-0-0 7	0-4-0 4	49-0-0 49	0-0-0 0	98-0-0 98
46-5 Taboose Pass Area	17-0-0 17	0-0-0 0	6-0-0 6	0-0-0 0	6-0-0 6	0-0-0 0	0-0-0 0
46-6 Lake Marjorie	0-0-0 0	0-0-0 0	0-0-0 0	9-0-0 9	0-0-0 0	0-0-0 0	0-6-0 6
47-1 Cartridge Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-2 Lake Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-3 Marion Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

		2003	2002	2001	2000	1999	1998	1997
47-4	Cataract Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-5	Mdws SW of Bench Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
47-8	Muro Blanco	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
51-1	Simpson Meadow	46-0-60 106	229-0-152 381	34-0-149 183	66-0-199 265	122-15-0 137	0-0-50 50	27-0-54 81
51-2	Tehipite Valley	0-0-0 0	8-0-0 8	0-0-0 0	0-8-0 8	12-0-0 12	0-0-0 0	14-0-0 14
51-3	Gnat Meadow	10-0-0 10	0-0-0 0	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0	0-0-42 42
51-4	Hay Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-1	Volcanic Lakes Basin	16-0-0 16	0-0-0 0	0-0-0 0	60-0-0 60	0-0-0 0	0-0-0 0	0-2-0 2
52-13	Jerkey Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-14	Upper end of Hotel Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-15	Hotel Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-2	Kennedy Canyon Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-3-0 3
52-3	Upper Kennedy Canyon	0-0-0 0	0-0-0 0	0-18-0 18	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-4	Kennedy Pass Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-5	West Kennedy Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
52-6	Frypan Meadow	14-0-0 14	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-1	Horseshoe Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-219 219	0-0-0 0	0-0-0 0
53-2	Horseshoe Lakes Turnoff	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-3	State Lakes Area	34-0-0 34	0-0-0 0	0-0-0 0	8-0-0 8	0-0-0 0	0-0-0 0	48-61-0 109
53-4.1	Dougherty Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-4.2	Glacier Valley Meadows	116-40-0 156	0-24-44 68	74-32-0 106	30-0-0 30	0-0-0 0	0-14-26 40	0-6-0 6
53-5	Fallen Moon Meadow	65-12-0 77	68-35-0 103	87-27-0 114	0-0-0 0	89-0-18 107	0-0-40 40	7-24-9 40
53-6	Volcanic Trail Junction	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
53-7	Shorty's Meadow	53-0-0 53	70-0-0 70	97-0-0 97	40-4-0 44	138-10-0 148	6-0-0 6	59-0-0 59
53-8	Granite Pass Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
54-1	Granite Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	8-0-25 33	0-2-0 2
54-2	Granite Basin Meadows	50-0-13 63	38-0-8 46	21-0-0 21	6-12-2 20	23-0-0 23	0-0-0 0	64-6-8 78
54-3	Grouse Lake	0-0-0 0	0-36-0 44	11-0-0 11	0-0-0 0	27-0-0 27	0-0-0 0	0-2-0 2
54-4	Halfmoon Meadow	48-0-0 48	0-0-0 0	0-18-0 18	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
54-5.1	Lower Tent Meadow	0-6-0 6	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
54-5.2	Upper Tent Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
55-1	Woods Creek Jct Mdw	0-0-0 0	0-0-0 0	175-0-15 190	25-0-20 45	80-0-0 80	0-0-0 0	54-4-0 58
55-2	U. Paradise Valley Mdw	0-5-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0
55-3	L. Paradise Valley Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	0-0-0 0	0-0-0 0	0-8-0 8
56-1	Mdws S. of Pinchot Pass	0-0-0 0	80-0-0 80	13-0-0 13	57-0-0 57	0-0-0 0	0-0-0 0	0-0-0 0
56-2	Twin Lakes Area	17-0-0 17	5-0-0 5	0-1-98 99	0-4-0 4	0-0-0 0	0-0-134 134	18-3-0 21
56-3	White Fork Camp	0-0-0 0	0-0-0 0	13-0-0 13	0-0-0 0	0-0-0 0	68-0-0 68	0-0-0 0
57-1	Woods Lake Meadows	109-0-0 109	74-0-0 74	18-0-0 18	0-0-0 0	20-0-0 20	27-0-0 27	15-0-0 15
58-1	Castle Domes Meadow	21-0-0 21	56-0-6 62	122-0-5 127	0-4-0 4	78-0-0 78	108-120-0 228	0-0-17 17
58-2	Woods Creek Crossing	159-5-69 233	90-0-63 153	13-63-126 202	0-0-0 0	0-0-44 44	44-24-40 108	0-0-68 68
58-3	Baxter Creek Drift Fence	28-5-0 33	121-0-0 121	48-0-0 48	36-0-0 36	49-0-14 63	76-0-0 76	86-5-3 94

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

		<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
59-1	Baxter Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
59-2	Baxter Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
60-1	Gardiner Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
61-1	Cotter Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
61-2	Fjord Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
61-3	Lower 60 Lakes Basin Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
62-1	Rae Lakes Basin Meadows	0-4-0 4	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-2-0 2
62-2	Dragon Lake Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
63-1	Charlotte Creek Meadows	91-24-3 118	48-10-0 58	29-0-0 29	66-0-0 66	60-0-7 67	36-0-0 36	8-16-0 24
63-2	Charlotte Lake Lower Mdw	0-0-0 0	0-0-0 0	34-0-0 34	0-0-7 7	0-0-0 0	24-0-0 24	50-16-0 66
63-3	Charlotte Lake Upper Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-6 6
64-1	Kearsarge Basin Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
64-2	Bullfrog Lake Meadows	0-0-0 0	0-0-0 0	0-0-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-16-0 16
65-1	Vidette Meadow	0-0-0 0	0-0-0 0	0-1-0 1	0-0-0 0	0-0-0 0	29-47-0 76	0-14-0 14
65-2	East Vidette Meadow	0-0-0 0	0-0-0 0	13-0-0 13	12-0-0 12	0-0-0 0	0-0-0 0	23-0-0 23
65-3	Upper Vidette Meadows	45-4-0 49	0-0-0 0	33-0-0 33	58-0-0 58	210-0-0 210	96-6-0 102	8-0-6 14
65-4	Upper Bubbs Creek	218-5-23 246	96-0-0 96	6-5-0 11	36-0-0 36	12-0-0 12	3-0-0 3	17-0-0 17
65-5	Center Basin	0-0-0 0	0-0-0 0	12-0-0 12	0-0-0 0	0-0-0 0	0-0-0 0	0-10-0 10
66-1.1	Sphinx Creek Junction	0-5-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
66-1.2	Angleworm Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
66-2	Charlotte Creek Confluence	0-7-0 7	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	52-0-0 52	0-0-3 3
66-3	Junction Meadow	122-3-94 219	119-0-13 132	161-12-17 190	142-21-15 178	58-0-6 64	40-53-3 96	155-51-22 228
67-1	East Lake Meadow	131-18-0 149	133-16-0 149	105-5-0 110	106-0-0 106	101-0-0 101	125-12-0 137	156-11-3 170
67-2	Ouzel Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	107-0-0 107	0-0-0 0
67-3	Reflection Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
68-1	Sphinx Creek Crossing	0-0-0 0	0-0-0 0	0-0-0 0	0-2-0 2	0-0-0 0	0-12-0 12	17-0-0 17
69-2	West Side Roaring River	0-0-97 97	0-0-75 75	0-0-22 22	0-14-13 27	0-3-14 17	30-4-51 85	56-97-0 153
69-3	JR Pasture	0-0-19 19	0-0-25 25	0-2-27 29	0-0-49 49	0-0-47 47	0-0-23 23	0-24-18 42
69-4	Lackey Pasture	3-2-16 21	0-0-10 10	0-8-12 20	0-0-47 47	23-0-18 41	0-9-48 57	0-0-4 4
69-5.1	Scaffold Mdw Tourist Past	3-63-20 86	30-62-26 118	17-102-205 324	26-139-189 354	99-139-163 401	0-76-115 191	102-46-165 313
69-5.2	Grasshopper Meadow	0-0-6 6	0-0-20 20	48-0-8 56	30-0-12 42	0-0-0 0	0-0-0 0	0-14-2 16
69-6.1	Moraine Meadow	0-5-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
69-6.2	Moraine Stringers	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
69-6.3	Metroyhoy Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-1.1	Grasshopper Camp	0-0-6 6	0-0-0 0	0-0-22 22	0-0-0 0	0-0-0 0	0-18-3 21	0-0-0 0
70-1.2	Brewer Stringers	0-0-0 0	0-0-0 0	0-0-0 0	0-27-0 27	0-0-0 0	0-0-12 12	0-0-0 0
70-2	Barton Meadow and Stringer	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
70-3	False Cement Table Mdw	0-0-14 14	0-0-20 20	0-0-0 0	0-20-6 26	0-0-0 0	0-0-0 0	0-0-0 0
70-4	Cement Table Meadow	0-4-0 4	0-12-0 12	10-55-0 65	18-145-9 172	0-34-0 34	0-32-0 32	0-14-0 14
70-5	Big Wet Meadow	92-15-2 109	163-171-20 354	212-27-36 275	6-0-15 21	62-0-21 83	0-6-0 6	0-0-17 17
70-6	Grand Palace Hotel	0-14-63 77	0-15-43 58	0-0-20 20	0-41-10 51	0-9-35 44	0-4-0 4	0-0-0 0

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

		<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
70-7	Colby Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
71-1	Austin Camp Meadows	3-5-12 20	0-51-25 76	0-50-22 72	0-0-33 33	0-0-0 0	0-12-0 12	0-16-0 16
71-2	Grave Meadow	32-42-0 74	0-0-0 0	20-0-0 20	42-25-0 67	0-21-0 21	0-48-0 48	0-0-0 0
71-3.1	Lower Ranger Meadow	0-9-0 9	0-0-0 0	0-0-4 4	0-40-49 89	28-87-6 121	0-0-0 0	0-10-0 10
71-3.2	Middle Ranger Meadow	0-281-8 289	0-0-0 0	0-0-0 0	0-0-3 3	0-0-3 3	0-18-6 24	0-1-0 1
71-4	Upper Ranger Meadow	0-0-8 8	0-20-6 26	0-0-6 6	0-0-3 3	0-0-0 0	0-0-0 0	0-86-65 151
71-5	Upper Deadman Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	4-0-0 4
72-1	Pond Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-10	Sugarloaf Creek Camp	0-0-0 0	0-0-0 0	0-25-18 43	0-21-0 21	0-0-0 0	0-3-0 3	4-1-0 5
72-11	Honeymoon Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-12	Boggy Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-13	Crowley Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-14	Box Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-15	Ellis Meadow Area	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-16	Paradise Meadow Area	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-8-0 8	0-0-0 0
72-17	West Fork Ferguson Ck	0-0-0 0	0-29-0 29	0-0-0 0	0-0-0 0	0-0-0 0	0-12-0 12	0-0-0 0
72-18	Ferguson Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-19	Long Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-2	Catch'em Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	20-0-0 20	0-0-0 0	0-0-0 0
72-20	Lewistall Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-21	Little Jack Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-22	Scenic Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-3	Willow Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-10-0 10
72-4	Mitchell Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-5	Quartz Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-6	Williams Meadow	0-0-0 0	0-8-0 8	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
72-7	Comanche Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6	0-6-0 6	5-36-0 41
72-8	Sugarloaf Meadow	75-48-0 123	99-91-5 195	0-128-0 128	72-118-6 196	20-207-3 230	0-85-0 85	43-148-0 191
72-9	Little Sugarloaf Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
73-1	Sheep Camp Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
73-2	Seville Lake	0-0-0 0	0-6-0 6	0-0-0 0	0-0-0 0	20-0-0 20	0-4-0 4	18-32-0 50
73-3	Lovelace Cabin Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
73-4	Lost Lake	0-39-0 39	0-12-0 12	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-73-0 73
73-5	Ranger & Beville Lakes	22-0-0 22	0-24-0 24	42-82-91 215	0-10-0 10	0-0-0 0	0-0-0 0	28-20-0 48
74-1	Twin Lakes	0-0-0 0	0-6-0 6	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	16-12-0 28
74-2	Pattee Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
74-3	Clover Creek	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-12-0 12
74-4	Cahoon Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
74-5	Silliman Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
74-6	Willow Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
75-1	Lone Pine Meadows	0-5-0 5	54-12-0 66	5-0-0 5	0-0-0 0	0-0-0 0	0-0-0 0	4-18-0 22

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

		<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
75-2	Tamarack Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-19-0 19
75-3	Table Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
76-1	Emerald Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
76-2	Pear Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
77-1	Bearpaw Meadow	0-0-0 0	0-27-0 27	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4
77-2	Little Bearpaw Meadow	74-9-0 83	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
77-3	River Valley	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
77-4	Granite Ck/Strawberry Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
77-5	Redwood Meadow	15-11-55 81	6-6-303 315	0-0-64 64	0-0-100 100	0-12-104 116	0-0-40 40	0-1-16 17
77-6	Cliff Creek	0-0-0 0	0-3-0 3	0-3-0 3	0-0-0 0	0-0-0 0	0-0-17 17	0-35-0 35
77-7	Pinto Lake Meadow	0-19-18 37	31-0-0 31	16-0-0 16	17-2-12 31	6-0-0 6	0-0-0 0	25-35-0 60
78-1	Hamilton Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-3 3	0-0-0 0	0-0-0 0	0-129-0 129
79-1	Cold Springs Camp Area	0-14-96 110	0-0-91 91	0-0-151 151	0-0-72 72	0-0-0 0	0-0-88 88	0-0-0 0
79-2	Milestone Basin	0-7-0 7	0-34-0 34	0-0-0 0	0-0-0 0	0-0-0 0	0-6-0 6	0-5-0 5
79-3	Rockslide Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
79-4	Lower Kern-Kaweah River	0-0-0 0	0-0-0 0	16-0-0 16	0-0-228 228	0-0-0 0	0-0-0 0	0-0-0 0
79-5	Gallats Lake Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-9 9	0-0-0 0	0-0-0 0	0-12-0 12
79-6	Upper Kern-Kaweah River	0-0-84 84	0-0-0 0	0-0-52 52	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-1	Bighorn Plateau Lake Mdw	30-0-0 30	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-2	Tyndall Ck/JMT Frog Ponds	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-3	Tyndall Creek Meadows	145-23-72 240	121-9-65 195	243-37-91 371	120-3-12 135	144-22-120 286	20-9-60 89	128-10-77 215
80-4	Sheep Camp Meadows	140-5-0 145	14-0-0 14	16-0-0 16	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-5.1	Lake South America	11-0-0 11	48-0-0 48	0-0-0 0	0-6-0 6	0-0-0 0	0-0-0 0	0-0-0 0
80-5.2	Lake S. Americal Col Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
80-6	Kern Headwaters	57-0-0 57	11-0-0 11	12-0-0 12	72-0-0 72	0-0-0 0	0-0-0 0	0-5-0 5
81-1	Wright Creek Drainage	149-9-0 158	99-4-0 103	104-0-0 104	9-0-0 9	24-10-0 34	0-6-0 6	38-0-0 38
81-2.1	Wallace Ck/JMT Jct Mdw	0-0-0 0	0-0-0 0	5-1-0 6	0-0-0 0	0-0-0 0	0-0-0 0	0-10-0 10
81-2.2	Wallace Creek Meadows	0-0-0 0	20-0-0 20	14-0-0 14	0-0-0 0	114-0-0 114	0-0-0 0	0-24-0 24
81-2.3	Wallace Ck Waterfall Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	5-0-0 5	0-0-0 0	0-0-0 0
81-2.4	Marshy Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
81-2.5	Wallace Ck Closed Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
82-1	Junction Meadow (Kern)	0-16-0 16	3-4-0 7	0-0-0 0	8-0-0 8	0-7-12 19	0-0-0 0	0-32-77 109
82-2	One mi. < Junction Mdw	0-0-0 0	0-0-0 0	0-0-2 2	0-0-3 3	0-0-2 2	0-0-3 3	0-0-2 2
82-3	Three mi. < Junction Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-1	Guitar Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-2	Timberline Lake Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
83-3	Crabtree R.S. Meadows	37-0-0 37	0-0-0 0	4-1-2 7	0-0-0 0	0-0-0 0	5-0-2 7	0-0-0 0
83-4	Upper Crabtree Meadow	215-14-38 267	168-26-40 234	307-0-2 309	111-18-0 129	229-15-0 244	0-12-0 12	273-52-0 325
83-5	Lower Crabtree Meadow	33-0-0 33	124-12-40 176	10-26-76 112	61-56-39 156	11-38-22 71	72-73-0 145	86-21-40 147
83-6	Crabtree Lakes Meadows	0-0-0 0	0-0-0 0	0-0-0 0	28-0-0 28	0-0-0 0	6-0-0 6	0-0-0 0
83-7	Lower Whitney Creek	0-0-0 0	0-12-0 12	0-0-0 0	0-0-0 0	0-0-0 0	0-16-0 16	0-30-0 30

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

		<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
83-8	Sandy Meadow	0-0-100 100	0-0-195 195	0-1-130 131	4-0-144 148	0-0-108 108	0-0-143 143	0-4-176 180
84-1	Rock Creek R.S. Meadow	0-9-0 9	0-49-0 49	0-5-0 5	0-0-0 0	0-0-0 0	18-0-0 18	0-4-0 4
84-2	Lower Rock Ck Xing Mdw	152-19-96 267	100-25-78 203	11-0-0 11	7-21-0 28	0-9-96 105	37-30-66 133	36-6-68 110
84-3	Lower Rock Creek Mdw	0-0-0 0	0-0-0 0	36-3-0 39	100-0-0 100	0-0-0 0	0-0-0 0	9-41-0 50
84-4	Forgotten Canyon Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
84-5	Guyot Creek Meadows	0-0-0 0	0-1-0 1	4-0-0 4	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4
84-6	Siberian Outpost	0-14-0 14	12-7-0 19	0-0-0 0	0-0-0 0	0-0-0 0	0-18-0 18	0-0-0 0
85-1	Sky Blue Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-10	Nathan's Meadow	46-0-19 65	24-7-20 51	103-6-90 199	52-32-63 147	55-0-0 55	18-0-66 84	19-0-20 39
85-2	Miter Basin Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-3	Lower Miter Basin Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-4	Penned-up Meadow	19-0-19 38	81-0-40 121	32-0-39 71	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-5	Upper Soldier Lake Meadow	0-0-0 0	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-6	Lower Soldier Lake Mdws	0-0-0 0	0-8-0 8	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-7	New Army Pass Jct Mdws	51-0-0 51	0-0-0 0	19-0-0 19	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
85-8	Lower Rock Creek Lk Mdw	41-6-0 47	0-0-0 0	63-0-0 63	21-0-0 21	8-0-21 29	36-16-0 52	10-0-0 10
85-9	Rock Creek Meadow #2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
86-1	Kern Bridge Camp	0-14-286 300	0-20-300 320	0-0-257 257	8-0-37 45	0-0-168 168	60-3-5 68	0-0-88 88
86-2	Upper Funston Meadow	0-28-23 51	39-86-38 163	50-37-27 114	14-40-10 64	119-63-140 322	0-13-54 67	19-36-15 70
86-3	Big Arroyo Confluence	0-0-0 0	0-0-0 0	0-0-168 168	4-0-0 4	0-0-108 108	0-0-0 0	0-10-0 10
86-4	21" Camp, Rattlesnake Ck	40-7-0 47	68-0-0 68	9-0-0 9	12-18-0 30	0-0-32 32	0-0-2 2	14-0-0 14
86-5	Lower Funston Meadow	40-38-0 78	85-80-0 165	65-26-0 91	28-2-0 30	171-46-0 217	18-20-0 38	238-120-0 358
86-6	Snake Camp, River Pasture	0-0-0 0	0-0-0 0	0-0-0 0	0-18-0 18	126-23-0 149	0-0-0 0	0-0-0 0
86-7	Lewis Camp Large Pasture	2-6-522 530	4-14-499 517	19-25-630 674	33-0-551 584	222-91-492 805	30-28-383 441	26-116-491 633
86-8	Kern Station Small Pasture	39-0-100 139	22-0-70 92	0-12-122 134	4-0-102 106	0-9-92 101	14-0-66 80	20-22-88 130
87-1	Upper Big Arroyo	0-9-0 9	0-8-0 8	0-0-0 0	14-0-72 86	0-0-0 0	0-0-0 0	0-0-0 0
87-10	Sky Parlor Meadow	0-5-0 5	8-2-36 46	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
87-2	Little Upper Big Arroyo	0-0-110 110	0-0-0 0	0-0-0 0	7-0-0 7	0-0-0 0	0-0-14 14	0-0-0 0
87-3	Big Arroyo Patrol Cabin	0-5-44 49	0-0-170 170	0-0-0 0	0-0-0 0	0-0-0 0	0-0-24 24	0-0-33 33
87-4	Lower Big Arroyo	0-14-0 14	0-0-5 5	0-0-0 0	10-0-152 162	0-0-0 0	10-0-0 10	0-4-0 4
87-5	Chagoopa Plateau Mdw #1	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
87-6	Chagoopa Plateau Mdw #2	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
87-7	Chagoopa Plateau Mdw #3	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
87-8	Chagoopa Plateau Mdw #4	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
87-9	Chagoopa Plateau Treehous	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
88-1	L. Little 5 Lks (Long Lake)	0-14-18 32	58-0-0 58	10-0-0 10	7-0-0 7	0-0-0 0	0-0-0 0	59-3-0 62
88-2	U. Little 5 Lks (R.S. Mdw)	0-0-0 0	8-3-0 11	8-3-0 11	0-4-0 4	0-0-0 0	0-0-0 0	0-7-0 7
88-3	Big 5 Lakes Lower Mdw	0-0-0 0	6-6-0 12	0-3-0 3	6-4-0 10	0-0-0 0	0-0-0 0	18-0-0 18
88-4	Big 5 Lakes Upper Mdw	0-3-0 3	16-0-0 16	16-0-0 16	22-0-0 22	0-0-0 0	0-0-0 0	0-0-0 0
88-5	Big 5 Lakes Upper Stringer	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-1	Spring Lk/Glacier Pass Md	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0



**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**  
**Commercial-Private-Administrative|Total Stock Nights**

		<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
89-10	Cow Camp	0-0-3 3	0-0-0 0	0-0-0 0	0-8-85 93	4-0-120 124	0-0-0 0	0-0-99 99
89-11	Laurel Creek Basin	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-12	Crytes Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	32-0-0 32	0-0-0 0	0-0-0 0
89-13	Coyote Creek Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	12-0-0 12	0-0-0 0	0-0-0 0
89-2	Upper Lost Canyon Mdws	0-0-0 0	5-0-0 5	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-3	Lower Lost Canyon Mdws	0-14-69 83	0-0-0 0	13-0-168 181	0-0-100 100	0-0-0 0	0-0-0 0	0-0-99 99
89-4	Soda Creek Canyon	0-0-0 0	8-0-0 8	0-0-0 0	11-0-0 11	0-0-0 0	0-0-0 0	0-0-0 0
89-5.1	Forester Lake Bench Mdws	0-0-0 0	0-9-0 9	0-3-0 3	22-0-0 22	0-1-0 1	0-0-0 0	0-0-0 0
89-5.2	Forester Lake Meadows	0-0-0 0	0-9-0 9	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	9-69-0 78
89-5.3	Forester Lake Pocket Mdw	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-6	Upper Rattlesnake Canyon	0-6-36 42	29-0-6 35	0-0-0 0	4-0-3 7	0-1-168 169	0-0-0 0	0-0-0 0
89-7	Shotgun Pass Meadow	0-0-5 5	21-0-0 21	13-5-0 18	6-0-0 6	0-0-0 0	0-0-0 0	0-0-0 0
89-8	South Rattlesnake Canyon	0-0-0 0	3-0-0 3	28-0-0 28	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
89-9	Middle Rattlesnake Canyon	0-0-128 128	0-12-134 146	0-0-152 152	4-8-48 60	0-0-5 5	10-0-133 143	0-0-4 4
90-1	Horse Creek Meadows	0-0-0 0	0-0-0 0	0-0-0 0	0-4-0 4	0-0-0 0	0-0-0 0	0-0-0 0
90-10	South Fork Meadow	159-130-0 289	246-77-0 323	118-20-0 138	122-18-0 140	60-0-0 60	0-30-0 30	20-102-0 122
90-11	South Fork Pasture	30-92-0 122	152-28-0 180	69-38-0 107	100-0-0 100	84-0-0 84	0-0-0 0	80-78-0 158
90-12	Blossom Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-13	Slim's Meadow	0-0-180 180	0-0-89 89	0-0-0 0	0-0-138 138	0-0-0 0	110-0-0 110	0-0-0 0
90-14	Green Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	24-0-0 24	50-0-0 50
90-15	Tuohy Meadows	0-10-0 10	0-0-0 0	0-33-0 33	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-16	Summit Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-54-0 54
90-17	Cyclone Meadow	0-0-0 0	4-0-0 4	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	10-2-0 12
90-18	Summit Lake Meadow	0-0-0 0	0-0-0 0	0-10-0 10	0-0-0 0	0-0-0 0	0-0-0 0	15-48-0 63
90-19	Quinn Meadow	0-20-11 31	0-7-33 40	0-0-2 2	0-0-7 7	0-0-15 15	0-0-0 0	0-4-15 19
90-2	Ansel Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-3	Evelyn Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-4	Cow Camp	0-0-0 0	0-0-0 0	0-0-0 0	0-2-0 2	0-0-0 0	0-0-0 0	0-0-0 0
90-5.1	Hockett Meadow	0-97-226 323	0-8-336 365	0-0-342 342	0-2-79 81	0-6-374 380	0-3-264 267	0-26-10 36
90-5.2	Hockett Pasture	0-0-66 66	0-0-104 104	0-0-24 24	0-0-308 308	0-0-98 98	0-0-100 100	0-0-169 169
90-6	Sand Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-7	Mitchell Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
90-8	Tuohy Ck/S. Fk Kaweah	0-4-0 4	48-5-0 53	30-0-0 30	0-0-0 0	0-0-0 0	0-0-0 0	226-4-0 230
90-9	Lower South Fork Meadow	30-53-0 83	12-48-0 60	0-3-0 3	0-20-0 20	0-0-0 0	20-120-0 140	30-15-0 45
91-1	Ladybug Camp	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
91-2	Whiskey Log Camp	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
91-3	Cahoon Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
92-1	Monarch Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-1-0 1
92-2	Crystal Lakes, Cobalt Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
92-3	Franklin Lakes	0-0-0 0	0-5-0 5	0-13-0 13	0-0-0 0	0-1-0 1	8-0-0 8	0-0-0 0
93-1	White Chief Meadow	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0

**Appendix 2: Reported Stock Use by Meadow Forage Area (including stock nights without grazing)**

		Commercial-Private-Administrative Total Stock Nights						
		2003	2002	2001	2000	1999	1998	1997
93-2	Eagle Lake	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
93-3	Mosquito Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-3-0 3
94-1	Mineral Lakes	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0
95-1	Redwood Canyon	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-3-0 3	32-0-0 32	26-14-0 40
96-1	North Fork Kaweah River	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0	0-0-0 0